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Factors affecting levels of perceived burnout on certified athletic trainers

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**FACTORS AFFECTING LEVELS OF PERCEIVED BURNOUT ON CERTIFIED
ATHLETIC TRAINERS**

**A Thesis presented to
The Faculty of the Department of Human Performance
San Jose State University**

**In Partial Fulfillment
of the Requirements for the Degree
Master of Arts**

**By
Jeffrey K. Tanaka
December 2001**

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ABSTRACT

FACTORS AFFECTING LEVELS OF PERCEIVED BURNOUT ON CERTIFIED ATHLETIC TRAINERS

By Jeffrey K. Tanaka

This study examines the effect of gender and years of professional experience on the level of perceived burnout of certified athletic trainers (ATCs) in California. One hundred twenty certified athletic trainers, 69 males and 51 females, participated in the study by completing the Maslach Burnout Inventory. Subjects were placed in one of four groups based on the number of years practicing as a certified athletic trainer. Descriptive statistics and comparisons of means were performed to identify possible differences in gender and professional experience groups. Results found that the most experienced group had the highest scores for the Emotional Exhaustion and Depersonalization subscales. Both gender groups and all experience groups scored in the low category for burnout on average for Personal Accomplishment. ATCs mean scores were in the low or moderate category in all three subscales and high scores should be considered on a case-by-case basis.

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Chapter 1

INTRODUCTION

Stress is caused by stressors, demands placed on an individual, and a person's appraisal of the stressor (Greenberg, 1983). Stressors include life events, daily hassles, organizational demands, and disasters. They are not necessarily detrimental. In fact, at certain levels, they motivate and help people perform at their best.

Greenberg (1990) developed an occupational stress model to describe some of the stressors experienced in the workplace. Stressors are often intrinsic to the job and may involve issues such as one's role in the organization, career development, relationships at work, and the organizational structure and climate. Individual characteristics such as anxiety level, personality, and threat/challenge orientation determine how the stressor is appraised and influences the response. In cases where the individual experiences excessive amounts of stress, characteristics of ill health such as high blood pressure, high cholesterol, smoking, becoming depressed, and abusing drugs, such as alcohol may develop. Ultimately, diseases such as coronary heart disease and mental illness may develop (Greenberg, 1990).

Occupational stress is a concern because of the excessive costs to business and emotional cost to employees (Greenberg, 1990). Employees who encounter excessive stress are more likely to make poor decisions, show a decrease in productivity, miss work, abuse alcohol or drugs, and must sometimes be replaced by another individual who must be trained at the company's expense. Job stress costs industry in the United States an estimated \$150 billion per year (Greenberg, 1990).

In recent years, the phenomenon of burnout has received increased attention through research. Burnout is a reaction to chronic stress caused by too much work or frequent frustration at work (Smith, 1986). Its most notable features are psychological, emotional, and physical withdrawal from activities which were at one time considered enjoyable. Characteristics of burnout include a diminished sense of humor, skipping rest and food breaks, social withdrawal, and internal changes such as feeling trapped, frustrated, depressed, or exhausted. Increased physical complaints such as fatigue, muscle tension, upset stomach, and susceptibility to illness have also been reported.

Individuals in certain occupations have been found to be at a higher risk for burnout than others because of specific demands the occupations share. Many people-oriented or care-giving fields are at a greater risk of burnout because tasks must be accomplished in a short amount of time and employees must work in a complex system involving co-workers, organizational demands, and people they treat (Savicki & Cooley, 1982). In addition, the employee must cope with their own positive and negative responses and those of others on a daily basis. In addition, medical fields maintain a high standard of care because the patient's well being may be at stake, which may lead to increased pressure to succeed.

One such medical field is athletic training. The athletic trainer is a major link between the athletic program and the medical community for the implementation of injury preventive measures, emergency care, and injury management. Athletic trainers are also educators and counselors (Arnheim, 1989). They instruct athletes about all aspects of their condition, including the nature of the condition and procedures to be followed for fastest recovery. The athletic trainer may also counsel athletes about

emotional problems, including sexuality, drug abuse, and personal or social problems (Arnheim, 1989). Some of the personal qualities shared by successful athletic trainers include stamina, adaptability, empathy, a sense of humor, strong communication skills, intellectual curiosity, and high ethical standards (Arnheim, 1989).

The nature of athletic training is one of caring about and serving the athlete. When the emotional demands of work overcome the professionals' resources to cope, they become candidates for burnout. Too many athletes for whom to provide care, the expectations of coaches to return an injured athlete to action, difficulties in caring for chronic conditions, and personality conflicts involving athletes, coaches, physicians, or administrators can lead to physical and emotional degeneration (Campbell, Miller, & Robinson, 1985; Capel, 1990). Little reward for one's efforts, role conflicts, lack of independence, or a feeling of powerlessness can lead to emotional trauma (Gieck, 1986). The athletic trainer is commonly in a constant state of high emotional arousal and anxiety during the working day. If certain precautions are not taken, physical problems may manifest themselves and the athletic trainer's health may be at risk.

Statement of Purpose

The purpose of the study was to examine the effect of gender and years of professional experience on the level of perceived burnout of certified athletic trainers in California.

Hypotheses

1. There will be no difference between male and female athletic trainers' Emotional Exhaustion scores on the Maslach Burnout Inventory.
2. There will be no difference between male and female athletic trainers' Depersonalization scores on the Maslach Burnout Inventory.
3. There will be no difference between male and female athletic trainers' Personal Accomplishment scores on the Maslach Burnout Inventory.
4. There will be no difference between Emotional Exhaustion scores among athletic trainers with varying amounts of professional experience.
5. There will be no difference between Depersonalization scores among athletic trainers with varying amounts of professional experience.
6. There will be no difference between Personal Accomplishment scores among athletic trainers with varying amounts of professional experience.

Limitations

The study was limited by:

1. the return rate of questionnaires.
2. subjects answering the questionnaire honestly.
3. current life experiences of the subjects which may affect their responses.
4. the ability of the Maslach Burnout Inventory to accurately determine levels of burnout among athletic trainers.
5. financial constraints of the researcher which limited the purchase of testing materials and postage

Delimitations

The study was delimited to:

1. certified athletic trainers who are members of the National Athletic Trainers' Association and employed in the state of California as of January 1998.
2. burnout as measured by the Maslach Burnout Inventory.

Definitions

1. Burnout. “an adverse reaction to job-related stress that varies in nature with the intensity and duration of the stress itself and takes on psychological, physiological, and behavioral components.” May be manifested in workers becoming emotionally detached from their jobs and cause them to leave the job altogether (Daley, 1979, p. 375)
2. Role ambiguity. “the lack of clear information regarding expectations associated with a particular role, the methods of fulfilling known role expectations and/or the consequences of role performance” (Capel, 1986, p. 322)
3. Role conflict. “the degree of perceived conflict between expected role behaviors” (Capel, 1986, p. 322)
4. Locus of control. “a person's general perception of the contingent relationship between their behavior and events which follow their behavior” (Capel, 1986, p. 322)
5. Stress. “an adaptive response, mediated by individual differences and/or psychological processes, resulting from any environmental action, situation, or event that places excessive psychological and/or physical demands on a person” (Ivancevich & Matteson, 1987, p. 761)

6. Stressor. “biological, psychological, sociological, or philosophical events (stimulus) which may cause stress” (Greenberg, 1990, p. 266) including “anticipation and imagination that triggers a stress reaction” (Girdano & Everly, Jr., 1979, p. 6)
7. ATC. athletic trainer certified by the National Athletic Trainers’ Association (NATA)

Summary

Through research, an occupational stress model has been developed in the hopes of gaining a better understanding of stress in the workplace and the effects it may have on employees (Greenberg, 1990). If left unchecked, stress can manifest itself as physical and/or psychological illness. Burnout is an adverse reaction to occupational stress, which may cause the individual to feel overwhelmed and become detached from their jobs (Daley, 1979). Job characteristics of health and other helping professions make one more susceptible to the burnout phenomenon (Savicki & Cooley, 1982). As a medical and helping profession, athletic trainers cope with intense individual and organizational demands on a daily basis (Arnheim, 1989).

The study of burnout is a growing area of research, especially in care-giving and health providing professions, especially since the potential costs to businesses and society are high (Greenberg, 1990). Due to the potential stressors brought on by the responsibilities involved in the profession, athletic trainers are at a potentially high risk to suffer from burnout. The present study examined the effect of gender and years of professional experience on the levels of burnout among certified athletic trainers in the state of California.

Chapter 2

REVIEW OF LITERATURE

Introduction

The purpose of the study is to determine the effect of gender and years of professional experience on the level of perceived burnout of certified athletic trainers in the state of California. This chapter contains a review of literature related to the job related stress and burnout. Previous research in burnout and resources in protective services, such as law enforcement and medicine will be followed by studies regarding stress and burnout in nurses, coaches, and athletic trainers. The review of literature will be followed by a brief summary.

Burnout Research and Resources in Various Professions:

Protective Services

Daley (1979) explained the susceptibility of caseworkers in protective services to emotional burnout and possible strategies for stress management. Daley cited limited resources, lack of autonomy, and environmental factors such as barriers to goal attainment causing frustration, uncomfortable working conditions, the necessity of meeting unreasonable demands, and role ambiguity. Daley found that a number of the workers who sought employment in social service were not prepared for the demands of the job and had made an incorrect career choice. However, the response of burnout is highly individualized and factors which cause burnout in one individual may represent a challenge to another. Thus, a broad based approach based on the specific elements of the job and individual would be most effective.

These statements were supported by Savicki and Cooley (1982), who outlined some of the environmental contributions to burnout in a presentation of previous research findings. The negativity or uncooperativeness encountered in the occupation was cited as an environmental source of stress. Some of the clientele were unwilling clients or felt they had been forced into the position of accepting help. They stated that "successes go away and failures keep coming back" (Savicki & Cooley, 1982). Workers in protective services often spend more time performing paperwork, attending staff meetings and other related activities than in direct contact with clients, leading to feelings of frustration (Daley, 1979). In addition, due to large caseloads and arbitrary deadlines, workers are often unable to see a case through to completion, leading to a lack of personal achievement.

Savicki and Cooley also note that several individual characteristics and attitudes found in some professionals may be influential in the development of burnout. Some individual characteristics such as overidentification, lack of detached concern, and high levels of idealism may lead one be more susceptible to the effects of burnout. Over-identification is one extreme on a continuum of the degree of involvement with the client (Savicki & Cooley, 1982). Over-identification can blur the boundaries between the helper and client and cause the client's problems and successes to become the counselor's. At the opposite extreme is a lack of identification or depersonalization in which the health worker loses concern for the patient and marks the end of empathetic understanding.

Attribution processes such as locus of control and styles of coping have been found to be influential as well. Attribution processes are the ways one views the causes

of successes or failures. Locus of control refers to a person's general perception of the contingent relationship between their behavior and events which follow their behavior (Capel, 1986, p. 322). Individuals with an internal locus of control feel that they have control of outcomes while those with external locus of control feel they are controlled by external sources such as luck or chance. Both extremes of attribution processes may be damaging and contribute to burnout (Savicki & Cooley, 1982).

Martin and Schinke (1998) examined organizational and individual factors influencing job satisfaction and burnout of mental health workers. Direct-service family service and psychiatric workers at several social service agencies in the New York metropolitan area participated in the study, which consisted of three confidential questionnaires distributed at work-sites. The questionnaires utilized were the 20-item Minnesota Satisfaction Questionnaire, the 22-question Maslach Burnout Scale, and 30-item Staff Burnout Scale for Health Professionals (Martin and Schinke, 1998).

Subjects were found to be fairly satisfied with their overall jobs, yet were dissatisfied with salary levels and promotional opportunities. A strong negative association between burnout and social services tenure ($-.20$) led researchers to suggest that burnout and limited social services tenure are significant determinants of staff turnover (Martin et al, 1998). Multiple regression analysis revealed that praise delivered by supervisors and promotional opportunities were the strongest predictors of job satisfaction. The authors suggest implementing policies to promote from within could aid in raising job satisfaction levels.

Job feedback also appeared to have a strong influence on job satisfaction levels as praise delivered by supervisors is positively associated with job satisfaction ($.62$) and

criticism is negatively correlated (-.35). The authors suggest revision of employee health benefit plans to include psychotherapy and stress reduction workshops to address the organizational problem of burnout. They also suggest training supervisors to recognize and commend employee efforts and accomplishments while delivering negative feedback only when necessary and in a constructive non-threatening manner (Martin et al, 1998).

The physiological effects of high stress have been seen to be modified by a "hardy personality" which includes characteristics of a stronger commitment to self and an attitude of vigorousness toward a coping style that includes awareness, self-insight, and a direct approach to problem-solving (Kobasa, 1979). When faced with a stressor such as a life event, the person with a hardy personality will make the necessary adjustments by approaching the new situation actively, utilizing available inner resources. The internal locus of control of the individual with a hardy personality allows him or her to view the life change as a positive event and its course as a function of how they handle it. This personality characteristic can reduce stressors in the workplace.

Another study examining individual characteristics with regard to job related tension and psychological distress was conducted by Flett, Biggs, and Alpass (1995). The subjects, rehabilitation service providers, were given three tests: 1) the job tension scale which identified sources of tension at work; 2) the Hopkins symptom checklist-21, which provided a general measure of symptoms of distress as well as three categories of distress; and 3) the Rosenberg self-esteem scale, measuring feelings of self worth and acceptance. Demographic data was also provided by respondents including age, sex, relationship status, length of time on the job, number of children, number of children at home, hours per week worked, and current annual salary.

Researchers found a relationship between job tension and general psychological distress, which was moderated by self-esteem, although the specific cause of the moderating effect was unclear. Interventions were suggested at the organizational level to specifically target feeling of positive self-esteem and job related tension including the involvement of staff in training sessions focusing on team building, communication skills, self-esteem, and stress management.

Daley suggested some of the strategies dealing with burnout. They included taking time away from the job and the stressors they present through "time outs" as well as vacations, participation in group discussions and support groups, supervisors using discretion when giving work assignments, and the use of periodic raises and promotions. This is supported by other studies (Martin et al, 1998; Flett et al, 1995). Stress reduction techniques such as progressive relaxation, meditation, yoga, and jogging have also been suggested (Savicki & Cooley, 1982). Counselors and other care-givers can be aided by developing an attitude of detached concern in working with clients and employing a focus on internal and external factors in explaining successes and failures in counseling situations.

Open communication with supervisory staff and co-workers should also be emphasized to help individuals cope with stress on the job. Training programs to introduce the employee to the stressors encountered in the job have been suggested in order to develop strategies to prevent stress from becoming a serious health concern. This clarification of expectations and beliefs about counseling can prevent counselors from feeling a lack of self-worth or success in the workplace. Daley suggests the use of

career ladders by supervisors to give the employee a clear understanding of the opportunities for advancement and aid in goal setting (Daley, 1979).

Nursing

The state of American health care has presented complex situational stressors that adversely affect nurses who are responsible for health care delivery. A study by Cohen (1990) examined the psychological well being of community nurse executives. The study analyzed occupational stressors, coping strategies, and sources of social support in the field. Rural, urban, and suburban public health directors throughout California participated in the study. Questionnaires were used for data collection. Some respondents agreed to participate in structured follow-up interviews which elicited additional information regarding their sources of work stress, coping strategies, and social support.

Data on stressors were gathered using a revised hassles and uplifts scale as well as open-ended interview questions related to major and minor stresses perceived and the problems they create. Causes of stress ranged from bureaucratic organizational structure, immense workloads, personnel problems, and quality of care. The number and intensity of occupational stressors experienced were higher than published norms, implying psychological distress (Cohen, 1990).

Coping data were collected through interview questions. Coping subscales included confrontational coping, distancing, planned problem solving, escape/avoidance and positive reappraisal. Planned problem solving was the most common mechanism employed, followed by confrontational coping. The use of health promotion activities was also cited as a common coping mechanism (Cohen, 1990).

As a helping profession, nurses face numerous stressors commonly experienced by individuals suffering from burnout. Ray (1984) outlined the reasons burnout is a potential problem for nursing faculty, which combines stressors experienced by both nurses and educators. Demands on time, organizational stressors, and interpersonal relationships have been cited as inherent characteristics of the profession that can lead to one becoming burned out. Some strategies for strengthening the body's defenses include physical exercise, relaxation techniques, interests outside of nursing, and relationships with others. The author also suggested that colleague support groups may be useful in preventing or recovering from burnout. Group support can help in establishing realistic goals and expectations, discovering self-defeating and self-affirming behaviors, and encouraging productive problem solving.

Another study involving psychological health and nursing professionals was performed by Fielding and Weaver (1994). In it, perceptions of work environment and psychological health were compared between hospital and community-based mental health nurses. Participants included 57 community-based and 67 hospital-based mental health nurses in Great Britain. Subjects completed demographic information including sex, age, and work site. Psychological strain was measured using the 22-item Maslach Burnout Inventory (MBI) and 12-item General Health Questionnaire (GHQ), which measures current state rather than chronic psychiatric illness. High scores signify high levels of psychiatric disturbance. The Work Environment Scale, Form R (WES) was one of the scales which make up the Social Climate Scales. The data showed that community nurses rated their work environments more positively than their hospital-based colleagues. The community nurse group reported higher levels of commitment to their

jobs, support of supervisors, autonomy, and more emphasis on variety, change, and new approaches to their work. However, these positives were offset by higher levels of work pressure and stress.

With regard to the levels of psychological strain, the researchers stated that the influence of self-selection should be considered. It is probable that nurses who preferred more structured, traditional working practices gravitated to those work environments which matched their particular preferences. Therefore, differences in strain would not be expected since individual needs and expectations would be met within the general working culture.

The effect of systematic clinical supervision on tedium and burnout among psychiatric ward nurses was the focus of a study by Hallberg (1994). All 11 nurses at a ward for child psychiatric care were evaluated by means of the tedium measure, Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981), open-ended interview, and the satisfaction with nursing at the onset of the study, and after 6 and 12 months of supervision. The interviews regarded the effects of additional individual supervision on the subjects, job performance, and collaboration with physicians and other co-workers. Two nurses were usually assigned to each patient as case managers responsible for the planning of the nursing care for the child and family, and were primary care providers.

Data was collected using the Tedium Measure (Pines, Aronson, & Kafry, 1981) and the MBI on 3 occasions; baseline, 6 months, and 12 months. Group clinical supervision was performed every third week for 2 hours. Each session focused on a particular patient and family and included an introduction to the patient's case, and reflections of the nurse on emotional reactions evoked by the patient, what characterized

the patient-nurse relationship, and what was perceived as the present major problem in the patient's care. Six and 12 month interviews were also administered and consisted of questions regarding the effect the respondents thought that the supervision had on them personally, on their job performance, and on their collaboration with colleagues, physicians, and paramedical staff.

Subjects feeling understood, and understanding others, leading to improved cooperation and self-confidence within the ward and increased knowledge base, led to increased use of goal-oriented strategies in clinical work. Nurses' scores on Tedium and burnout were low from the baseline (< 5), thus it was difficult to improve further. The researchers concluded that systematic clinical supervision may be a method to show the knowledge of practitioners, and to offer support in focusing on problems dealt with, leading to improved quality of care and well-being of nursing staff. It could also improve cooperation, the work climate, and enhance development of professional skills. Proving the impact of clinical supervision on stress caused by psychological demands was difficult because the study was limited by a small sample size, but a positive aspect of the study was that it took several measurements to detect changes over time.

Another study dealing with ward-based psychiatric nurses was conducted by Brown, Carson, Fagin, Bartlett, & Leary (1994). The authors developed a 4 stage model for stress: Stress caused by intrinsic features of the job itself, including management, pay, and relationships; Subjective quality based on personality of individual; Coping Strategies; and physical effects, behavioral (drinking), and experiential (anxiety).

Qualitative data was collected by semi-structured interviews and group discussions. Quantitative data was collected from 250 community practice nurses

(CPNs) and 323 ward-based staff using the General Health Questionnaire (GHQ), MBI, Rosenberg Self-Attitude Survey, and Minnesota Job Satisfaction Coping Skills Questionnaire. Community practice nurses experienced greater levels of stress than ward-based staff. Forty one percent of CPNs sampled exceeded threshold criteria while 28% of ward-based staff were above the threshold. On the MBI, emotional exhaustion scores were in the moderate to high burnout range (48% of CPNs and 44% of ward-based staff). Both groups were generally satisfied with their respective jobs despite the amounts of stress. After completing the survey, several nurses reported a structure had been introduced which enabled them to examine their problems. They stated that identifying sources of stress was a key way of dealing with it. This was confirmed by lower scores on a one-month follow up re-test.

A study performed by Pines and Maslach (1978) examined characteristics of staff burnout in mental health settings. The authors gathered data from 76 staff members in various mental health settings in the San Francisco area to determine characteristics of burnout and ways of coping with it. Psychiatrists, psychologists, nurses, social workers, attendants, and volunteers in large state, army, and county hospitals, as well as treatment and halfway houses, participated in the study. Interviews based on specially designed questionnaires were open-ended and scale items in four areas were used. The areas included demographic information, characteristics of the job, staff members' attitudes and feelings about mental health work, and self perceptions. The authors found that as the patient to staff ratio increases, job satisfaction decreases. In addition, an increase in the frequency of staff meetings increased the negative and dehumanizing attitudes regarding patients. The authors also found that as work hours increased, staff stress and negative

feelings increased and the staffs feeling of control over and responsibility for patients decreased. The amount of administrative work was also found to be negatively proportional to job satisfaction. Among the ways suggested by the authors for coping with stress were decreasing the patient-staff ratio by sharing the patient load, decreasing work hours, and increasing time-out opportunities for employees. Offering socialization, support, and the opportunity to discuss problems and clarify goals at staff meetings was also suggested. The authors also recommended student training to deal with stress so that new practitioners in the field know what to expect when entering the work force.

Physicians

Work-related stress and depression among emergency physicians was the focus of a study conducted by Whitley, Allison, Gallery, Cockington, Guadry, Heyworth, & Revicki (1994). The subjects were 764 practicing emergency physicians from the United States, 91 fellows in Australia, and 154 consultants and 47 senior registrars from the United Kingdom. Levels of work-related stress and depression were measured to determine the effects of gender and marital status. Demographic data was collected and the Work-Related Strain Inventory (WRSI) was used to measure levels of stress. The WRSI's reliability and validity when used with health providers was provided in the literature. The Center for Epidemiological Studies-Depression Scale (CES-D) was designed to measure depression in general populations. Of the participants, 86.6% were men and 81.2% were married. Physicians in the U. K. reported significantly higher levels of stress and depression than their U. S. and Australian counterparts. This was possibly due to increased job responsibilities in the U. K. The average level of stress reported by married physicians in the U. S. was not significantly lower than their unmarried

colleagues. However, marriage did appear to serve as a buffering effect for both men and women in all three survey sites. The study was limited by the nature of survey research and the cross-sectional design at a single point in time. The researchers concluded that, taken together, the results suggest that while the physicians surveyed were subject to work-related stress, its effects were not so debilitating that physicians were precluded from deriving satisfaction from their work.

Another study involving physicians and burnout was conducted by Deckard, Meterko, & Field, (1994). Three hundred forty-two physicians in 2 staff model HMOs (one in New England and one in the Midwest) participated in the study. Long versions of the Clinician Worklife Satisfaction Survey were randomly sent to 235 of the participants. The long version included the MBI modified by Golembrewski. The personal and professional factors addressed included age, sex, length of time with the organization, and specialty. Workload, scheduling, support staff, personal support, professional development, clinical support systems, quality of care, and patient interactions were evaluated to measure organizational work life.

Fifty eight percent of the subjects reported high Emotional Exhaustion scores on the MBI indicating they are beyond comfortable coping limits. Thirty five percent reported high Depersonalization scores indicating development of uncaring attitudes toward patients and 98% reported high Personal Achievement from their work, consistent with previous research. Younger physicians were significantly more likely to be classified in the high EE category than older (45-54 and 55-64) ones. Greater emotional exhaustion and depersonalization scores were also associated with longer associations with the same organization. Correlations supported the hypothesis that higher levels of

burnout were associated with low evaluations of organizational and work life factors. Lower satisfaction with workload and scheduling strongly correlated with higher emotional exhaustion scores. Ratings of management, support staff, colleagues, salary, and benefits were all negatively correlated with emotional exhaustion. High depersonalization scores were negatively correlated with lower satisfaction with patient interactions, management, support staff, recognition, and workload.

Among the suggestions the authors give to combat physician burnout is facilitating better physician/patient relationships by giving patients realistic expectations of their physicians and by assuring that a reasonable amount of time is provided for patient appointments. Another is reducing the organizational constraints, which encourage a more assembly line practice, which is less responsive to patients. Management should also address the quality of work-life and the stress impinging on the physicians to assure physician well-being and perceived quality of care and patient satisfaction.

Coaches

A study examining personal/situational variables, stress appraisal, and burnout in collegiate teacher-coaches was performed by Kelley and Gill (1993). The participants, male and female NCAA Division III and NAIA teacher-basketball coaches, completed questionnaire packets consisting of a perceived stress scale, coaching problems survey, coaching issues survey, social support questionnaire, and Maslach Burnout Inventory, form Ed.

The relationship between personal/situational variables and stress appraisal variables was investigated using a multivariate multiple regression and canonical

correlation analyses. Researchers found that higher satisfaction with social support and more experience predicted a lower overall stress appraisal. In addition, males tended to have lower stress appraisal scores than females and the higher levels of overall stress appraisal, the higher burnout score was recorded. Perceived stress, coaching issues, and coaching problems were positively related to the burnout components of emotional exhaustion and depersonalization. These findings supported previous research on burnout, which found that social support networks and levels of experience affect levels of perceived stress and gender differences in stress appraisal scores.

The researchers further found that teacher-coaches experience a broad spectrum of stressors due to the demands inherent in each role as well as conflicting demands of holding both positions. Burnout was found to be a significant problem for the population examined in this study with the majority of teacher-coaches suffering from moderate to high levels of burnout.

A similar study performed by Caccese and Mayerberg (1984) examined gender differences in perceived burnout of college coaches. Levels of perceived burnout were measured using the Maslach Burnout Inventory. Subjects were NCAA and AIAW Division I college head coaches. A series of two-way ANOVAs were performed with the demographic variables collected with the survey for each of the criterion burnout variables, emotional exhaustion, depersonalization, and personal accomplishment. The demographic variables included age, total years in coaching, years in present position, marital status, perceived success rate, and type of sport coached.

The researchers found that female collegiate head coaches reported higher levels of burnout than their male counterparts when measured by the Maslach Burnout

Inventory. However, neither group were found to be excessively burned out, scoring on the low end of the burnout scale. The demographic data suggested that female coaches were younger, had less experience than male coaches and had fewer opportunities to learn how to cope with the stresses inherent in coaching. The authors suggested that the female coaches were possibly too idealistic in their expectations and demands on themselves. The authors speculated on other possible explanations for the gender differences but could not find concrete evidence in the research which would explain them. Another suggestion of the authors was that, at the time of the study, female athletics was trying to legitimize itself as a viable entity in the collegiate arena, which put additional pressure on the coaches to perform well and prove that they deserve financial support. Another possibility is that female athletics do not receive the recognition and attention that is given to men's teams, which can affect a coach's sense of personal accomplishment.

In another study examining burnout in coaches, Capel, Sisley, and Desertrain (1987) investigated the relationship of role conflict, role ambiguity, and demographic variables to burnout in head high school basketball coaches. A questionnaire combining the Maslach Burnout Inventory (MBI), Role Questionnaire, and demographic information sheet was sent to head basketball coaches in six western states.

The predictive influence of role conflict, role ambiguity, and the other selected variables on total burnout was determined using multiple regression analysis. Two multivariate multiple regression analyses were used to determine the predictive influences of eight independent variables on MBI scores. Three regression analyses were conducted to gain maximum information about burnout in coaches.

Respondents showed only low to medium burnout scores but the authors noted that the data could be misleading because only 51% of potential respondents returned the questionnaire. Role conflict and role ambiguity appeared to consistently contribute significantly more to the variance in burnout than other variables. The authors also suggested that some coaches may be able to combat burnout because of the opportunities for gaining satisfaction and reward due to the challenging nature of the work and the degree of autonomy for the head coach. Although role conflict has been cited as a cause for burnout, based on the subjects' responses in this study, a problem with burnout was not indicated.

Educators

A study conducted by Pretorius (1994) utilized the Maslach Burnout Inventory to assess burnout in educators in South Africa. Ninety-four full time faculty at the University of the Western Cape, South Africa participated in the study. In addition to the MBI, organizational related variables such as role conflict, role ambiguity, and participation in decision making were assessed using a role questionnaire developed by Rizzo, House, & Sirtzman (1970). Four hundred questionnaires were distributed with a return rate of 23.5%. Multiple regressions were performed using demographic variables (sex, age, years at university, position, and number of students) and indices of organizational behavior (role conflict, role ambiguity, participation in decision making) as independent variables while the three dimensions of burnout were used as dependent variables. Role conflict and number of students were significant predictors of emotional exhaustion. Number of students and role ambiguity significantly predicted depersonalization and participation in decision-making was the only significant predictor

of personal achievement. The study was limited by low response rate, which led to low statistical power and sample bias. The study did state that one of the major determinants of burnout seemed to be conflicting or unclear and ambiguous expectations, which can be reduced through improved communication between administration and faculty.

Public Servants

Individuals in public service such as police officers and firefighters have often been the focus of burnout research because of the mental and physical demands of the job and their large workload. A study by Burke (1994) examined burnout among police officers. Eight hundred seventy eight police officers participated in the study by responding to a questionnaire presented at various continuing educational offerings related to police work. Measures included individual demographic and situational variables such as age, sex, rank, years in policing, size of force, education, years in present job, and marital status. Stressful events were measured using a scale similar to the Schedule of Recent Experiences developed by Holmes and Rahe (1967). It gauges the impact of one's job and job demands on nine areas of home and family life and various coping responses utilized. Psychological burnout was measured using the Maslach Burnout Inventory, and questions regarding job satisfaction, intention to turnover, emotional well being, and physical health and lifestyle behaviors such as smoking and consumption of medications.

Several multiple regression analyses were undertaken with predictor variables entered in blocks. Dependent variables were work outcomes, psychological well-being indicators, and measures of self-reported physical health and lifestyle behaviors. The emotional exhaustion component of the MBI was significantly related to both work

attitude and emotional well-being measures. Individual demographic characteristics were modestly related to measures of work attitudes and emotional well-being and more strongly related to physical health measures. Officers with higher educations reported fewer psychosomatic symptoms and negative feeling states. Older officers reported more sick days, greater use of medication, and increased coffee consumption. Officers who participated in exercise reported fewer psychosomatic symptoms and smoked less frequently. Isolationists reported more psychosomatic symptoms and negative feeling states. The emotional exhaustion composite of the MBI was significantly related to both work attitude and emotional well-being measures. The authors suggest that this component is the most important of the three components of the inventory in predicting work and well-being outcomes.

Emergency medical technicians (EMTs) were the focus of a similar study by Neale (1991) examining burnout. In the study, 103 of 200 EMT union members (53%) returned 3 mailed questionnaires. The questionnaires included the Occupational Stress Index, which assesses stress, strain, and coping, the Staff Burnout Scale for Health Professionals, and a job satisfaction survey. According to the results, the sample experienced high stress, strain, and burnout scores, but coping skills were within the normal range. Burnout, stress, strain, and coping were significantly related to job satisfaction as was concern about infectious diseases and perceptions of being poorly treated by emergency room personnel and firefighters. Job satisfaction was also related to attitudes that the job adversely affected one's family; that the EMT quarters are comfortable; and that administrators are not knowledgeable of the job demands and skills of EMTs.

A study performed by Murphy, Beaton, Pike, and Cain (1994) also studied paramedics as well as firefighters in investigating years of service, job aspirations, and burnout. In this research, 1,984 surveys (out of 4,000 sent) were returned from firefighters (1,730) and paramedics (253), all of whom were certified EMTs. Surveys included questions pertaining to sources, mediators, and symptoms of stress, traumatic experiences, and job related outcomes. The burnout scale contained 13 physical, cognitive, emotional, and behavioral symptoms of stress that are consistent with burnout as a multi-dimensional phenomenon. Responses were made using a 5 point Likert scale according to the frequency of symptoms. Current job satisfaction, morale, and career goal attainment were assessed using 3 separate visual analogue scales with anchors of 0, 50, and 100.

The research questions investigated differences between firefighter and paramedics on indices of job satisfaction, work related morale, career goal attainment, and burnout; differences caused by the percent of emergency medical runs; and associations between years of service and burnout when worker age is held constant. Among firefighters, all correlations between years of service and variables of interest were small but statistically significant. Those with more years of experience reported slightly less job satisfaction, decreased work related morale and career goal attainment, and a slight positive relationship to burnout.

Paramedics' scores on indices of job satisfaction, work related morale, and career goals were nearly identical to those reported by firefighters. Correlations between years of service, indices of job outcome measures, and burnout when age was controlled for were all low ($r < .20$), possibly due to differences in sizes of groups.

The study was limited by its cross-sectional design and reflects recent events. The number of firefighters and paramedics who may have "burned out" and left the profession, making themselves unable to participate in the study, was not known.

Athletic Trainers

As a helping profession, athletic training has been the focus of burnout research in previous studies. In research performed by Campbell, Miller, and Robinson (1985), the prevalence of burnout in athletic trainers was examined. Subjects, members of the National Athletic Trainers' Association (NATA) attending a national symposium, were asked to complete a questionnaire and personal data sheet. This could be viewed as a flaw in the research because individuals who are burned out would be less likely to attend conventions than their enthusiastic counterparts. Two hundred twenty one of a possible 1500 symposium attendees participated in the study. The questionnaire asked about the presence of medical conditions associated with high stress and questions regarding feelings of perceived stress. The authors found no differences in burnout scores between trainers based on age, gender, number of times married, number of children, children living with, degree, length of time certified, length of time with current organization, and length of time in current position. The authors concluded that all certified athletic trainers, regardless of educational, work background, and demographic makeup are at equal risk of becoming burned out. Athletic trainers suffering from burnout tended to share some of the same qualities. Burned out trainers tended to be male, younger, and did not have children compared to those without burnout. In addition, head trainers and trainers working with at least one other certified athletic trainer showed higher levels of burnout.

A case study involving a head athletic trainer was presented by Gieck (1986). The athletic trainer reported mental breakdown needing psychiatric care caused by a lack of perceived control (locus of control), job responsibilities and hours (role conflict), inability to say no when overloaded, and a neglect of stress management. The lack of control indicated feelings of powerlessness, isolation and neglecting stress management made it difficult to defuse the stressful situation, allowing it to mount. Exercise, diet, sleep, and family habits were poor, adding to levels of anxiety. A lack of positive feedback by staff and athletes was also cited as a reason for higher stress levels. The study outlined several of the stressors commonly seen in athletic training and the consequences when steps are not taken to minimize their effect on the individual.

In a related study, Capel (1986) examined the psychological and organizational factors related to burnout in athletic trainers. The author identified athletic trainers as an at risk population because of their long hours, large workloads, lack of control over decision making, and few rewards. Several factors were examined as determinants of burnout in athletic trainers. The subjects, certified athletic trainers in the western United States, completed the Maslach Burnout Inventory, role questionnaire developed by Rizzo, House, and Lirtzman, which examined role conflict, and the Rotter Internal External Locus of Control Scale which examined one's locus of control, and gave demographic information. The study showed some characteristics to be predictors of levels of perceived burnout. Role conflict, role ambiguity, locus of control, number of athletes in the trainer's care, and number of hours were all found to be predictors of burnout frequency and intensity. The higher levels of role conflict, role ambiguity, greater number of hours in direct contact with the athlete, and an external locus of control

increased the level of burnout. Higher levels of role conflict were associated with higher emotional exhaustion and depression while higher levels of role ambiguity were associated with a decreased sense of personal accomplishment.

Another study performed by Capel (1990) examined attrition of athletic trainers and some of the causes cited for leaving the profession. Subjects completed a questionnaire to obtain information about the individual, institutions for which the individual worked, reasons for entering the profession, reasons for leaving the profession, and current employment status. Respondents found working with athletes, professional activities, freedom, responsibility, independence, challenge, and feeling needed/helpful to be the greatest rewards of the job. The costs of the job included long hours, conflicts with coaches, administrators, or other personnel, administration and paperwork, and an inability to meet all demands. Extrinsic factors leading to negative experiences were most often cited as reasons for leaving the profession and as the least enjoyable aspects of the job. For this reason, the author stated that early identification of negative extrinsic aspects of the job perceived as potentially negative and stressful for the individual may prevent the perception that they outweigh the rewards. These extrinsic aspects include time commitments, personnel conflicts, and work overload. A change of interest or value reorientation was not found in athletic trainers who decided to leave their job. In most cases they moved on to positions which demanded similar skills but were perceived to be more attractive than athletic training.

In a study examining the motivational congruency and discrepancy of athletic trainers, Buxton, Lankford, and Gieck (1992) specifically looked at one's perceived control of a situation. Ways for management to increase productivity and efficiency by

reducing stressors and removing barriers were also explained. Twenty-five certified athletic trainers in Hawaiian high schools, colleges, and clinics participated in the study. The subjects responded to the Neal-Priest Inventory for Motivational Congruency or Discrepancy. The Kruskal-Wallis statistical test and Mann-Whitney U test were used to determine which groups differed in the ranking and rating of various motivators. Three intrinsic factors: perceived importance of the work; job growth or enlargement; and achieving work-related goals, and three external factors: good benefits and wages; good working conditions; and getting along with others, were identified as motivators. The strongest motivators were the perceived importance of the work and job growth. Satisfying extrinsic needs were found to eliminate dissatisfaction but not motivate employees in the workplace. However, reducing dissatisfaction was noted to decrease factors leading to burnout. The authors hoped that the educational preparation of athletic trainers would incorporate concepts of leadership, leadership development, and management. This could facilitate students to be sensitive to the needs of others, versatile, patient, and improve other interpersonal skills to improve the work atmosphere and reduce personal and structural sources of stress.

Summary

Burnout was found to be a significant problem in several health and care-giving professions as well as coaching (Burke, 1994; Campbell et al, 1985; Capel, 1986, 1990; Daley, 1979; Deckard et al, 1994; Gieck, 1986; Hallberg, 1994; Kelley & Gill, 1993; Pines & Maslach, 1978; Ray, 1984;). Limited resources (Daley, 1979; Ray, 1984), lack of autonomy (Daley, 1979), and environmental factors such as barriers to goal attainment causing frustration, uncomfortable working conditions, the necessity of meeting

unreasonable demands, and role ambiguity were often cited as potential causes of stress and eventual burnout (Brown et al, 1994; Daley, 1979; Deckard et al, 1994; Hallberg, 1994). Motivation and other personal factors also determine an individual's level of perceived stress (Brown et al, 1994; Capel, 1986; Fielding et al, 1994; Savicki et al, 1982). Individual factors should always be considered when conducting research related to stress because of the significant role personal issues play on one's appraisal of stress (Kobasa, 1979). Educational techniques incorporating concepts of leadership and leadership development could be employed to improve the work atmosphere and reduce personal and structural sources of stress (Buxton et al, 1992; Flett et al, 1995; Martin et al, 1998; Pines et al, 1978).

Chapter 3

PROCEDURES

Introduction

The purpose of the study was to determine the effect of gender and years of professional experience on the level of perceived burnout of certified athletic trainers in California. This chapter includes a description of the instrumentation used to gather data for the purpose of completing this study and the procedures used in data collection. Statistical analysis will be discussed, followed by a brief summary.

Subjects

Subjects in this study include certified athletic trainers (ATCs) in the state of California. According to the National Athletic Trainers' Association, there are 1,037 ATCs in the state. These athletic trainers are employed in a wide variety of settings including clinics, high schools, junior colleges, four-year colleges or universities, and professional organizations in several sports.

Instrumentation

The Maslach Burnout Inventory (MBI) was selected to measure levels of perceived burnout and has been described in several studies (Caccese & Mayerberg, 1984; Capel, 1986; Capel, Sisley, & Desertrain, 1987; Kelley & Gill, 1993). The inventory is a self-report instrument consisting of 22 questions developed by Maslach and Jackson (1981). The instrument is divided into three subscales: Emotional Exhaustion (nine items), Depersonalization (five items), and Personal Accomplishment (eight items). Emotional exhaustion refers to one's feeling emotionally extended and exhausted by

work. Depersonalization describes an impersonal and unfeeling response towards recipients of care or treatment. Personal accomplishment involves one's feeling of competence or successful achievement in work with people. Respondents indicate frequency of feeling for each question. Frequency is measured on a 7 point scale, (0-never to 6-every day)

The MBI is widely used and a well accepted instrument to test burnout in helping professions. In the initial study performed by Maslach and Jackson, the MBI's internal consistency using the Cronbach coefficient alpha was strong as a whole (total $r = .83$ [frequency] and $.84$ [intensity]) and for each subscale (Maslach and Jackson, 1980). For Emotional Exhaustion, $r = .89$ for frequency and $.86$ for intensity. In the Depersonalization subscale, $r = .77$ for frequency and $.74$ for intensity, and for Personal Accomplishment, $r = .74$ and $.74$. Test-retest reliability was measured, resulting in the following r -values: for Emotional Exhaustion, $r = .82$ (frequency) and $.53$ (intensity); for Personal Accomplishment, $r = .80$ and $.68$; and for Depersonalization, $r = .60$ and $.69$, respectively. The MBI's internal consistency, test-retest reliability, and validity have been established and documented in previous research including studies involving athletic trainers (Capel, 1986).

In this case, questionnaires were sent to potential subjects, certified athletic trainers, throughout the state of California. The population used was determined by the number of available subjects, financial constraints, and previous studies. To aid in the development of the survey, texts designed for this purpose were utilized (Fink & Kosecoff, 1985). The results of the study could possibly show a prevailing problem

encountered by athletic trainers and offer some ideas on how to combat burnout in the profession.

Research Design

Subjects consisted of athletic trainers certified by the National Athletic Trainers' Association in the state of California randomly selected from a list provided by the NATA. A membership address list was requested and sent as an e-mail attachment in text form. Two hundred fifty males and 250 females were selected at random from the California list for a total of 500 potential subjects.

To conduct the study, the researcher presented the research protocol for review by the Human Subjects-Institutional Review Board of San Jose State University. The request to use human subjects required the purpose of the study, hypotheses to be addressed, number, age, and type of subjects. A printout of each member was separated and placed in a box for random selection. The member's name pulled in this manner was added to the potential subjects list. Subjects were not financially compensated in any way. Subjects were coded in the data entry process to ensure confidentiality. Only the researcher had access to raw data and response forms. A consent form was attached to the cover letter, which was signed when returned in order to be eligible to participate in the study.

A packet was mailed to each potential subject containing The Maslach Burnout Inventory (Appendix A), a cover letter (Appendix B) explaining the research, demographic questionnaire, an opportunity to give informed consent, and a self-addressed stamped envelope. A year 2000 San Francisco Forty Niners calendar was also included as a token of appreciation for potential assistance in hopes of increasing

response rate. A follow-up postcard was mailed for subjects who had not responded two weeks after the initial mailing. Survey materials were to be returned no later than April 30, 2000. Demographic data included gender, hours worked per week, age, and years of professional experience. Subjects were informed that scores would remain confidential, however, they could indicate whether the researcher could contact them regarding a follow-up interview. Subjects were also be given the opportunity to request the results of the study from the researcher.

Statistical Analysis

For the purpose of this study, descriptive statistics and frequency distributions were used to look for differences in means between gender and amount of professional experience. Descriptive statistics were also used to determine mean scores and standard error of mean so that comparisons can be made to norms in other helping professions (Fink & Kosecoff, 1985). Standard error of mean is a measure of a reasonable difference between a sample mean and the parent mean, and is used in working out confidence limits and confidence intervals (Porkess, 1991).

Summary

Certified athletic trainers from the state of California were studied to determine possible differences in MBI scores as a function of gender and amount of professional experience. Prior to the collection of data, the Human Subjects-Institutional Review Board of San Jose State University approved the testing protocols. The Maslach Burnout Inventory was used to measure levels of perceived stress because of its established reliability and validity, especially in research involving athletic trainers. Descriptive statistics and frequency distributions were used to look for differences in means between

gender and amount of professional experience. Descriptive statistics were also used to determine mean scores and standard error of mean so that comparisons could be made to norms in other helping professions.

Chapter 4

RESULTS

Introduction

The purpose of this study was to determine the effect of gender and years of professional experience and the level of perceived burnout of Certified Athletic Trainers in the state of California. Using a mail-out survey, the Maslach Burnout Inventory was utilized to determine a burnout score for the inventory's three subscales. The three subscales are Emotional exhaustion (EE), one's feeling emotionally extended and exhausted by work; Depersonalization (DP), which describes an impersonal and unfeeling response towards recipients of care or treatment; and Personal Accomplishment (PA), which involves one's feeling of competence or successful achievement in work with people. It should be noted that a higher score for EE and DP indicates a higher level of burnout; a higher PA score indicates a lower level of burnout. This chapter presents the statistical results obtained by performing descriptive data analysis and frequency distributions on burnout levels as measured by the Maslach Burnout Inventory.

Comparisons were made in scores of the three subscales based on gender and number of years of professional experience. Subjects were placed into one of four categories based on experience. Experience Group A consisted of ATCs with 0-5 years of experience (n=42); Group B had greater than 5 to 10 years (n=33); Group C greater than 10 to 15 years (n=21); and Group D had greater than 15 years of professional experience (n=24).

Subjects/Results

Of a possible 500 potential subjects, 250 were female and 250 were male. One hundred twenty ATCs (24% return rate) from California participated in the study. Of the

respondents, 51 subjects were female (20% return rate) and 69 were male (28% return rate). The low rate of return limited the ability to draw conclusions from the data. In addition to the limited initial mailing, a possible reason for a low return rate was the fact that potentially burned out ATCs would not participate in such endeavors. Subjects returned completed questionnaire and demographic data sheets as well as signed informed consent documentation. The mean experience for all respondents was 9.72 years with a standard error of mean of .61. The mean for males and females was 9.65 (SE=. 84) and 9.82 (SE=. 88) years, respectively. The most experienced subject had 28 years of experience while six subjects had 1 year of experience or less.

Table 1 presents the descriptive information for all three subscales based on gender. Females' mean score for EE was 18.29 with a standard error of mean of 1.46, which falls into the moderate category for burnout. Standard error of mean is a measure of a reasonable difference between a sample mean and the parent mean, and is used in working out confidence limits and confidence intervals (Porkess, 1991). Fifty one percent of respondents (26 subjects) scored in the low category, 25.5% (13 subjects) were in the moderate category, and 23.5% (12 subjects) scored in the high category. The frequency distribution is shown in Figure 1. Of 69 male respondents, 33 were in the low category (47.8%), 25 were in the moderate category (36.2%), and 11 subjects (15.9%) fell into the high category. The mean score for males was 17.06 (moderate) and the standard error of mean was 1.12. The frequency distribution for males is shown in Figure 2.

Table 1

Maslach Burnout Inventory Scores Based on Gender

GENDER		EE	DP	PA	YRS EXP
Female	N	51	51	51	51
	Mean	18.29	5.12	40.94	9.82
	Std. Error of Mean	1.26	.55	.77	.88
	Categorization	Moderate	Low	Low	
	Minimum	1	0	25	1
	Maximum	45	17	48	25
GENDER		EE	DP	PA	YRS EXP
Male	N	69	69	69	69
	Mean	17.06	6.81	40.32	9.65
	Std. Error of Mean	1.12	.65	.75	.84
	Categorization	Moderate	Moderate	Low	
	Minimum	2	0	21	1
	Maximum	37	22	48	28

Figure 1
Female Emotional Exhaustion Scores

Figure 2
Male Emotional Exhaustion Scores

Descriptive statistics for groups based on years of experience are shown in Table

2. For Emotional Exhaustion, Group A had a mean score of 17.23 (moderate) with a standard error of mean of 1.52, Group B had a mean of 15.36 (low) with a standard error of mean of 1.50, Group C a mean of 18.95 (moderate) with a standard error of mean of 2.17, and Group D a mean of 19.92 (moderate) with a standard error of mean of 2.19. For Group A, 21 subjects (48.8%) scored in the low category, followed by 13 in the moderate category (30.3%), and 9 in the high category (20.9%). Nineteen subjects in Group B (57.6%) scored in the low category, 11 in the moderate category (33.3%), and 3 high (9.1%). Of 21 subjects in Group C, 8 subjects scored low (38.1%), 8 moderate (38.1%), and 5 high (23.8%). For Group D, 12 subjects scored low (48%), 6 moderate (24%), and 7 high (28%).

Table 2

Maslach Burnout Inventory Scores Based on Years of Experience

GROUP		EE	DP	PA
A	N	42	42	42
	Mean	17.57	5.40	39.52
	Std. Error of Mean	1.52	.61	1.07
	Categorization	Moderate	Low	Low
	Minimum	2	0	21
	Maximum	38	16	48

GROUP		EE	DP	PA
B	N	33	33	33
	Mean	15.36	5.36	42.39
	Std. Error of Mean	1.50	.85	.81
	Categorization	Low	Low	Low
	Minimum	1	0	28
	Maximum	37	17	48
C	N	21	21	21
	Mean	18.95	6.43	39.62
	Std. Error of Mean	2.17	1.13	1.16
	Categorization	Moderate	Low	Low
	Minimum	1	0	26
	Maximum	38	19	48
D	N	24	24	24
	Mean	19.46	8.00	40.79
	Std. Error of Mean	2.24	1.16	1.13
	Categorization	Moderate	Moderate	Low
	Minimum	3	1	28
	Maximum	45	22	48

Depersonalization refers to one's impersonal or unfeeling response towards recipients of their care or treatment. For males, 39 subjects scored in the low category

(56.5%) compared to their female counterparts, of which 35 scored low (68.6%).

Thirteen female ATCs scored moderate (25.5%), compared to 18 males (26.1%). Three females (5.9%) and 12 males (17.4%) scored in the high category for depersonalization.

Frequency distributions for females and males are demonstrated in Tables 3 and 4, respectively. For experience groups, Group D had the highest percentage in the high category at 24% (n=6) while Group A had the lowest (7%, n=3). It must be noted that Group A had 43 subjects and Group D had 25 subjects. Each experience group had a majority of subjects scoring in the low category.

Figure 3

Female Depersonalization Scores

Figure 4

Male Depersonalization Scores

Personal accomplishment involves one's feeling of competence or successful achievement in work with people. It is the only subscale on the inventory in which a higher score equates to a lower level of perceived burnout. Over three quarters of female subjects (76.5%, $n=39$) scored in the low category compared to 68.1% of male subjects ($n=39$). In the moderate category, 17.6% of females ($n=9$) and 21.8% of males ($n=15$) scored at this level while 5.9% of females ($n=3$) and 10.1% of males ($n=7$) scored in the high category for burnout. Figures 5 and 6 demonstrate female and male Personal Accomplishment scores, respectively. Among experience groups, Group A had the highest percentage scoring in the high category for burnout at 16.3% ($n=6$), while Group B had the lowest (3%, $n=1$). Group B also had the highest percentage scoring in the low

category for this subscale (81.8%, n=27), followed by Group D (76%, n=19), Group C (71.4%, n=15), and Group A (60.5%, n=26).

Figure 5

Female Personal Accomplishment Scores

Figure 6

Male Personal Accomplishment Scores

Chapter 5

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

Individuals in people-oriented or care-giving fields have been found to be at greater risk of burnout, (Savicki et al. 1982). Tasks must be accomplished in a short amount of time and employees must work in a complex system involving co-workers, organizational demands, and people they treat. In addition, the employees must cope with their own positive and negative responses on a daily basis as well as maintaining the high standard of care inherent to the medical field. This chapter presents a summary and discussion of the results of this study as well as conclusions and recommendations for addressing burnout among athletic trainers, and recommendations for future studies.

In previous research, burnout was found to be a significant problem in several health and care-giving professions as well as coaching (Burke, 1994; Campbell et al. 1985; Capel, 1986 & 1990; Daley, 1979; Deckard et al. 1994; Gieck, 1986; Hallberg, 1994; Kelley & Gill, 1993; Pines & Maslach, 1978; and Ray, 1984). Among the causes cited for burnout were limited resources (Daley, 1979; Ray, 1984), lack of autonomy (Daley, 1979), and environmental factors (Brown et al. 1994; Daley, 1979; Deckard et al. 1994; and Hallberg, 1994). Individual factors should also be considered when evaluating research regarding burnout (Brown et al. 1994; Capel, 1986; Fielding et al. 1994; Kobasa, 1979; and Savicki et al. 1982).

Summary

The purpose of the study was to determine the effect of gender and years of professional experience on the level of perceived burnout of ATCs in California. One

hundred twenty subjects (females=51, males=69) participated in the study. Subjects returned completed questionnaires and demographic data sheets with signed informed consent documentation. The state of California was chosen as the subject pool due to its large number of potential subjects and regional interest. A thorough literature review revealed that a study examining years of experience and gender on burnout in ATCs had not been conducted. Subjects were placed into one of four categories for years of experience. Group A consisted of ATCs with 0-5 years experience, group B had >5-10 years experience, group C had >10-15 years experience, and group D had more than 15 years as an ATC. Descriptive data analysis and frequency distributions were performed on burnout levels as measured by the Maslach Burnout Inventory. None of the groups (gender, years of experience) had a mean score in the high category for the three subscales for burnout, indicating that no one group was experiencing high levels of job-related stress as measured by the inventory.

Discussion

Approximately half of both male and female respondents scored in the low category for emotional exhaustion, one's feeling emotionally extended and exhausted by work. Fifty one percent of females (n=51) scored in the low category, 25.5% moderate, and 23.5% high. Male respondents had similar results, with 47.3% (n=69) scoring in the low category. Males had fewer subjects in the high category (15.9%) compared to their female counterparts. Both groups had mean EE scores in the moderate category. This is in contrast to a study performed by Brown, et al. (1994) on psychiatric nurses in community and private practice, which found 48% of community practice nurses and 44% of ward-based staff scoring in the moderate to high category for emotional

exhaustion. The results of EE scores for ATCs is also lower than those found in physicians in a study performed by Deckard, (1994), in which 58% of 342 MDs scored in the high category for emotional exhaustion. Deckard also found that younger physician were more likely to have higher EE scores than their older counterparts. The study also found that subjects with longer associations with the same organization tended to have higher scores for EE as well as depersonalization. Of the four experience groups in the current study, the most experienced (Group D) had the highest mean EE score (19.92 ± 2.24) although it should be noted that this falls into the moderate category. The individual with the highest score for EE (45) came from Group D. The most experienced group also had the highest percentage in the high category (28%). Scores for EE fell primarily in the moderate category, indicating that subjects tended to be somewhat emotionally extended by their work.

For depersonalization, 68.8% of females scored in the low category compared to 56.5% of males. Meanwhile, 17.4% of males and 5.9% of females scored in the high category, indicating a greater tendency for males to depersonalize (detach) or objectify their subjects than their female counterparts. The results were in contrast to those found in the study by Deckard, (1994) in which 35% of 342 physicians scored in the high category for depersonalization. For experience groups, only Group D scored higher on average than the low category (moderate). Once again the most experienced group (Group D) had the highest percentage of subjects scoring in the high category (24%) while Group A had the lowest (7%). It should be noted, however, that Group A had 42 subjects and Group D consisted of 24 subjects.

Personal accomplishment (PA) involves one's feeling of competence or successful achievement in work with people. It is the only subscale in the inventory in which a lower score equates to a higher level of perceived burnout. For this subscale, both males and females scored overwhelmingly in the low category for burnout (68.1% and 76.5%, respectively). This indicates that most ATCs find their work rewarding and have a sense of accomplishment in helping their patients. This is consistent with a study performed by Capel (1990), which found that working with athletes, professional activities, freedom, responsibility, independence, challenge, and feeling needed/helpful to be the greatest rewards of the job. Experience Group B had the highest percentage of subjects scoring in the low category (81.8%) and Group A had the lowest (60.5%). Group A also had the highest percentage scoring in the high category (16.3%). This reverses a trend in the previous subscales in which the most experienced group were responsible for the highest percentage scoring in the high category for burnout. These results could possibly be explained by the newer ATCs having to learn to cope with the types of demands placed on them in their new roles and the need for intrinsic rewards for positive feedback and accomplishment, while their more experienced colleagues are more accustomed to the nature of their work environments. The results are also consistent with other studies (Capel et al. 1987; Deckard, 1984) which showed that regardless of various levels of burnout in the other categories, subjects scored in the low category for personal accomplishment. This indicates that they feel what they are doing is worthwhile and rewarding and that opportunities exist for gaining satisfaction and reward, possibly due to the challenging nature of the work.

Results with regards to gender are consistent with results from a previous study performed by Campbell, Miller, and Robinson (1985), which found no differences in burnout scores between athletic trainers based on age, sex, and other factors. In the current study, it should be noted that in all three subscales, females had a higher percentage than males scoring in the low category. This is in contrast with a study performed by Caccese et al. (1984) which found that among collegiate head coaches, female burnout scores were slightly higher than males, although neither was excessively burned out.

Conclusions

The following conclusions were established based on the results.

1. Males and females scored similarly for Emotional Exhaustion (Low).
2. ATCs with the most experience had the highest scores as a group for the Emotional Exhaustion and Depersonalization subscales.
3. Both gender groups and all experience groups scored in the Low category for burnout on average for Personal Accomplishment.
4. Average scores for females were lower than males on the Depersonalization subscale.
5. On average, ATCs scored in the Low/Moderate category in all three subscales and high scores should be considered on a case-by-case basis.

Recommendations

The following recommendations were made based on the results.

- 1. Examine the characteristics of subjects at the high and low ends of the scoring scale, look for common characteristics, and help those with high scores by following what those with low scores are doing which may help account for their scores.**
- 2. Examine possible causes of older and younger groups' scores being higher than those in the groups with 5-15 years of experience.**
- 3. A mentoring program could be mutually beneficial to those ATCs if a need is identified. New ATCs could be introduced to their new work environments by more experienced staff. This could help the less experienced athletic trainer learn to cope with the demands inherent in the specific work setting by involving their co-worker who has previous experience. Conversely, the older, more experienced ATCs could be positively influenced by working with their younger, energetic colleagues**
- 4. Follow subjects through the course of the calendar/academic year and examine whether scoring trends change.**
- 5. Educational preparation for potential Certified Athletic Trainers should take into consideration work-related stress in the athletic training setting and incorporate concepts that would help determine if the candidate is well suited for the work environment. One suggestion is to continue requiring a mandated amount of hours working hands-on in an athletic training room.**

6. Further studies should consider a larger subject pool from a broader geographic region.
7. Future studies should examine other demographic data such as work setting, athlete/trainer ratio, and number of hours worked per week.
8. Future studies should examine individual characteristics such as coping skills and social support.

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Appendix A

San Jose State University Human Subjects Review Approval Form

San José State
UNIVERSITY

Office of the Academic
Vice President

Associate Vice President
Graduate Studies and Research

One Washington Square
San Jose, CA 95192-0025
Voice: 408-924-2480
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<http://www.sjsu.edu>

TO: Jeffrey K. Tanaka
1464 Portobelo Dr.
San Jose, CA 95118

FROM: Nabil Ibrahim,
AVP, Graduate Studies & Research

DATE: March 1, 2000

The Human Subjects-Institutional Review Board has approved
your request to use human subjects in the study entitled:

**"Factors Affecting Perceived Burnout on
Certified Athletic Trainers"**

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research project, and with regard to any and all data that may be collected from the subjects. The Board's approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Nabil Ibrahim, Ph.D., immediately. Injury includes but is not limited to bodily harm, psychological trauma and release of potentially damaging personal information.

Please also be advised that all subjects need to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal will not affect any services the subject is receiving or will receive at the institution in which the research is being conducted.

If you have any questions, please contact me at
(408) 924-2480.

The California State University
Chancellor's Office
Blairfield, Chico, Dominguez Hills,
Fresno, Fullerton, Hayward, Humboldt,
Long Beach, Los Angeles, Maritime Academy,
Monterey Bay, Northridge, Pomona,
Sacramento, San Bernardino, San Diego,
San Francisco, San Jose, San Luis Obispo,
San Marcos, Sonoma, Stanislaus

Appendix B

Agreement to Participate in Research

Responsible investigator: Jeffrey K. Tanaka, ATC

Title of Protocol: Human Services Survey

I have been asked to participate in a research study investigating the effects of clinical setting and years of professional experience on burnout levels in certified athletic trainers.

I will be asked to openly and honestly complete the Maslach Burnout Inventory and demographic data sheet and return it to the researcher by May 12, 2000.

I understand that the questionnaires will be answered voluntarily and at my own risk and is not intended to cause discomfort in any way nor cause any foreseeable risk. I understand I may discontinue my participation at any time without cause and not be subject to prejudice. I also understand that I am not expected to receive any benefits or compensation for my participation in this research study.

I understand that the information that I provide will be anonymous. I give the investigator my permission and consent to use my information for the study, understanding that if the study is published, I will in no way be identified by the information I provide.

If I have any questions regarding the study, I may contact the researcher, Jeff Tanaka (408) 562-4929 or Dr. Greg Payne, Thesis Chair at (408) 924-3028. Complaints about the research may be directed to Dr. Carol Christensen, Department Chair, Department of Human Performance, at (408) 924-3010. Questions or complaints about research, subject's rights, or research-related injury may be presented to Nabil Ibrahim, Ph.D., Associate Academic Vice President for Graduate Studies and Research, at (408) 924-2427.

I have received two copies of this consent form, and understand that I am to sign both, one to keep for my records, and the other to return with my survey materials to the investigator.

"I have read the above statements, and by signing and dating my name above the investigator's name and date, I am giving my consent for the researcher to use my information for the benefit on the study."

Subject's Signature

Date

Investigator's Signature

Date

Appendix C

Cover Letter

February 21, 2000

Dear Colleague:

As many of you are aware, the issue of burnout has been debated and addressed among athletic trainers for the past 15 to 20 years. I am conducting research involving job-related stress and burnout among athletic trainers and I would appreciate your help.

Enclosed you will find a questionnaire, demographic data sheets, two copies of the Agreement to Participate in Research, and a self addressed stamped envelope for your convenience. Please take 10 to 15 minutes to complete these materials.

Please be sure to sign both consent forms and keep one copy for your records. Please return the completed survey materials in the self addressed stamped envelope no later than May 12, 2000. This would help me with the data collection process. Responses and scores will remain confidential. Please be reminded that participation is completely voluntary and you may withdraw from the study at any time.

You may also indicate if you would like the results of the study or would be interested in participating in a brief, follow-up interview. Thank you for your time and effort.

Sincerely,

Jeff Tanaka, ATC
jtanaka@niners.nfl.com

encl.

Appendix D

Maslach Burnout Inventory

Sample Items on the Maslach Burnout Inventory

13. I feel frustrated by my job
19. I have accomplished many worthwhile things in this job.

How often:

- 0 - Never
1 - A few times a year or less
2 - Once a month or less
3 - A few times a month
4 - Once a week
5 - A few times a week
6 - Every day

Appendix E

Demographic Data

Please complete the following demographic data sheet:

Age:

- 21-30
- 31-40
- 41-50
- 51 - 60

Other degrees/certifications held:

- PT
- PTA
- PA
- LAC
- CSCS
- DC
- Other(s): _____

Current primary work setting:

- High school
- Junior college
- Physical therapy clinic
- Four year college/university
- Hospital
- Professional sports
- Other (please elaborate): _____

Years at current position:

- 0-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 21-25 years
- 25 + years

Years of experience as a Certified Athletic Trainer:

- 0-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 21-25 years
- 25 + years

Number of Certified Athletic Trainers at your work site: _____

Approximate trainer to Athlete/Patient ratio: _____